

routinely occur to maintain desired generator rpm's across the distribution of operating wind speeds. Same control will be applied to the water turbine.

[0029] Centrifugal weight control, fixed pitch, an extended low speed shaft and transmission distinguish the discussed solution from present day wind and water turbines.

1. A wind (water) turbine power generating assembly comprising:

- a fixed pitch blade/rotor assembly;
- an extended low speed shaft with 1:1 gearbox for 90° turn;
- a centrifugal weight control assembly;
- a clutch and transmission assembly in lieu of traditional gearbox;

an assembly at the tower base including CWC, transmission, and generator(s);

2. Apparatus as set forth in claim 1;

wherein increasing amounts of power will be generated in the 15 to 25 m/s range for wind and the 2.4 to 3.4 m/s range for tidal (bi-directional flow);

wherein optimized tip speed ratio can be maintained for the entire operating range of the flow (wind or water).

3. Apparatus as set forth in claim 2;

wherein initial build and ongoing operational and maintenance costs will be significantly less than current technology.

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